

Job Risk Analysis																		
Name(s) of Risk Team Members: J. Scott, J. Maraviglia				Point Value → Parameter ↓		1		2		3		4		5				
Job Title: C-AD Staff Crane Operation Job Number or Job Identifier: JRA 19				Frequency (B)		≤once/year		≤once/month		≤once/week		≤once/shift		>once/shift				
Job Description: Crane use by C-AD staff throughout C-AD complex				Severity (C)		First Aid Only		Medical Treatment		Lost Time		Partial Disability		Death or Permanent Disability				
Training and Procedures List (optional): Crane Operator Training (web-based course & Practical check-out), Medical Surveillance, Back Safety Training, ladder safety training				Likelihood (D)		Impossible		Unlikely		Possible		Probable		Multiple				
Approved by: <i>E. Lessard</i> Date: 8-11-04 Rev. #: 0																		
Stressors (if applicable, please list all): Temperature, lighting, working at heights, hurrying				Reason for Revision (if applicable):						Comments:								
				Before Additional Controls										After Additional Controls				
Job Step / Task	Hazard	Control(s)	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	Control(s) Added to Reduce Risk	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	% Risk Reduction		
Crane inspection	Overexertion – injuries caused by excessive lifting, pushing, pulling, holding, carrying	Back safety training, use of squat lift technique, work planning, PPE, inspection checklist, training, use of dollies, hand trucks, OPM procedures, Tier 1 inspections	Y	2	4	2	2	32										
Crane inspection	Falls on same level	Work planning, PPE (slip-resistant footwear), training, housekeeping, Tier 1 inspections	Y	2	4	3	2	48										
Select rigging equipment, move to load area	Overexertion – injuries caused by excessive lifting, pushing, pulling, holding, carrying	Back safety training, use of squat lift technique, work planning, PPE, training, OPM procedures, group procedures, Tier 1 inspections, known weight of load, known center of gravity of load, known lifting points on load	Y	2	4	2	2	32										
Select rigging equipment, move to load area	Falls on same level	Work planning, PPE (slip-resistant footwear), training, housekeeping, Tier 1 inspections	Y	2	4	3	2	48										
Select rigging equipment, move to load area	Falls to lower level, such as falling from a ladder or over a railing	Work planning, PPE (slip-resistant footwear), training, housekeeping, Tier 1 inspections, fall protection as required, ladder safety training as required	Y	2	3	4	2	48										

Hook up to the load	Overexertion – injuries caused by excessive lifting, pushing, pulling, holding, carrying	Back safety training, use of squat lift technique, work planning, PPE, training, OPM procedures, group procedures, Tier 1 inspections, known weight of load, known center of gravity of load, known lifting points on load	Y	2	4	2	3	48								
Hook up to the load	Falls on same level	Work planning, PPE (slip-resistant footwear), training, housekeeping, Tier 1 inspections	Y	2	4	3	2	48								
Hook up to the load	Falls to lower level, such as falling from a ladder or over a railing	Work planning, PPE (slip-resistant footwear), training, housekeeping, Tier 1 inspections, fall protection as required, ladder safety training as required	Y	2	3	4	2	48								
Lift the load and move to new location	Getting struck by dropped load or hitting other objects or people with load while moving	Work planning, PPE, training, PE & C-AD inspection and maintenance of equipment, SBMS subject areas, OPM procedures, group procedures, Tier 1 inspections, known weight of load, known center of gravity of load, known lifting points on load, two persons for lift, route and area checked clear prior to movement, visible and audible alarms on cranes as required, directional markings on crane and pendant, availability of engineering input and qualified PE riggers	Y	2	4	4	2	64	C-AD Supervisors to review their personnel assigned to perform mechanical material handling (FATS Action 2370.1.1). Recent rigging incidents have heightened awareness of needed competency and following of procedures and safety rules Each experimental collaboration at RHIC instituted a mechanical-material-handling log-book to document the necessary requirements stated in Mike Bebon's memo (July 2, 2004) for non-C-AD employees who use the overhead cranes and forklifts. This includes discussion of planned work with the person(s) doing the work, ensuring that they have the training/qualifications, and ensuring they are aware of the safety aspects of the work to be performed.	N	2	4	4	2	64	Stressors will go down due to greater emphasis on work planning , and should reduce the likelihood of an injury but an injury is not impossible
Lower/lay down the load	Load tipping/falling	Work planning, PPE, training, PE & C-AD inspection and maintenance of equipment, SBMS subject areas, OPM procedures, group procedures, Tier 1 inspections, known weight of load, known center of gravity of load, known lifting points on load, two persons for lift, route and area checked clear prior to movement, visible and audible alarms on cranes as required, directional markings on crane and pendant, availability of engineering input and qualified PE riggers, Floor area loading capacity known, chocking	Y	2	2	3	2	24								
Unhook rigging equipment	Overexertion – injuries caused by excessive lifting, pushing, pulling, holding, carrying	Back safety training, use of squat lift technique, work planning, PPE, training, OPM procedures, group procedures, Tier 1 inspections, known weight of load, known center of gravity of load, known lifting points on load	Y	2	4	2	3	48								
Unhook rigging equipment	Falls on same level	Work planning, PPE (slip-resistant footwear), training, housekeeping, Tier 1 inspections	Y	2	4	3	2	48								

Unhook rigging equipment	Falls to lower level, such as falling from a ladder or over a railing	Work planning, PPE (slip-resistant footwear), training, housekeeping, Tier 1 inspections, fall protection as required, ladder safety training as required	Y	2	3	4	2	48								
Store rigging equipment	Overexertion – injuries caused by excessive lifting, pushing, pulling, holding, carrying	Back safety training, use of squat lift technique, work planning, PPE, training, OPM procedures, group procedures, Tier 1 inspections	Y	2	4	2	2	32								
Store rigging equipment	Falls on same level	Work planning, PPE (slip-resistant footwear), training, housekeeping, Tier 1 inspections	Y	2	4	3	2	48								
Store rigging equipment	Falls to lower level, such as falling from a ladder or over a railing	Work planning, PPE (slip-resistant footwear), training, housekeeping, Tier 1 inspections, fall protection as required, ladder safety training as required	Y	2	3	4	2	48								
Store/save the crane	Falls on same level	Work planning, PPE (slip-resistant footwear), training, housekeeping, Tier 1 inspections	Y	2	4	3	2	48								
Further Description of Controls Added to Reduce Risk:																
*Risk:	0 to 20	21 to 40			41-60				61 to 80				81 or greater			
	Negligible	Acceptable			Moderate				Substantial				Intolerable			